

**Rejections Under 35 USC 103**

Claims 1-21 remain rejected because the Examiner contends that the Hattersley *et al.* disclosure directed to BMP in combination with parathyroid hormone (PTH), is relevant to the claimed invention because of the open term "comprising." According to the Examiner, the claimed method and composition of an effective amount of BMP does not exclude the use of PTH because of the term "comprising." Applicants submit that the claimed invention requires only BMP for articular cartilage repair, while Hattersley *et al.* requires both BMP and PTH. PTH is not required in Applicants' invention, but is a required element of the Hattersley *et al.* disclosure. Therefore, Applicants' invention is not obvious over Hattersley *et al.* because Hattersley *et al.* does not teach or suggest that a BMP, such as BMP-2, alone can be effective in the repair and regeneration of articular cartilage.

It is contended that Nevo *et al.* directed to compositions such as embryonal chondrocytes or embryonal chondrocytes together with growth factors such as CDGF, BDGF for repairing damaged cartilage, also teaches osteochondral grafting in repairing damaged cartilage. Therefore, the Examiner contends that where Hattersley *et al.* teaches chondrocytes as a tissue source in cartilage development it would have been obvious to modify Hattersley *et al.* by using the teaching of Nevo *et al.* to further support chondrocytes as a tissue source as well as osteochondral grafts. Applicants submit, however, that one skilled in the art would not substitute PTH, which Hattersley *et al.* disclose as an essential factor for chondrocyte development and maturation, with osteochondral graft. While Hattersley *et al.* disclose PTH as an essential factor in chondrocyte development and maturation it is also disclosed (at Col. 2, lines 3-6) that

PTH expression in articular cartilage varies in intensity and localization during development, while the PTH receptor is highly expressed in the growth plate and in articular cartilage. Therefore one skilled in the art would not likely substitute PTH with osteochondral graft with the expectation of the regeneration of articular cartilage.

Reconsideration of the application is requested. Should the Examiner believe that a telephonic interview would assist in clarifying any remaining issues, the Examiner is invited to call the undersigned attorney.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: May 29, 2002

By Leslie McDonnell (Reg. No. 34,872)  
for: Ellen J. Kapinos  
Reg. No. 32,245

FINNEGAN  
HENDERSON  
FARABOW  
GARRETT &  
DUNNER LLP

1300 I Street, NW  
Washington, DC 20005  
202.408.4000  
Fax 202.408.4400  
www.finnegan.com